

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/581,890 Confirmation No. : 8715
First Named Inventor : Frank DUVINAGE
PCT Filed : November 27, 2004
TC/A.U. : 3748
Examiner : Binh Q. TRAN
Docket No. : 095309.57817US
Title : Exhaust Gas Purification System for a Motor Vehicle
Having a Reducing Agent Storage Tank, and Associated
Operating Method

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Applicants request review of the rejection set forth in the final Office Action dated November 24, 2009. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

Claims 9-25 remain in this application, while claims 1-8 were previously canceled.

Independent claims 9, 16, 19, and 20 are rejected under 35 U.S.C. § 103(a), along with all other claims in this application, as unpatentable over U.S. Patent 6,363,771 to Liang et al. in view of U.S. Patent 5,763,771 to Ott et al. This rejection is erroneous and should be withdrawn.

As noted in the last-filed response, claim 9, the only independent claim directed to an exhaust gas purification *system*, particularly specifies that the reducing agent storage tank recited is configured to have a capacity that is at

least equal to a level predetermined by an assumed reducing agent consumption during a predetermined maintenance interval. The Liang et al. and Ott et al. disclosures, collectively, fail to suggest an exhaust gas purification system meeting the limitations noted. While the capacity or volume of the Liang et al. storage tank 12 could conceivably be characterized as "predetermined" in some unidentified way, there is nothing in the Liang et al. disclosure to suggest the use of any specific criterion, let alone the criterion of an assumed reducing agent consumption during a predetermined maintenance interval, to govern that capacity or volume. There is also no disclosure provided by the Liang et al. patent of any sort of "predetermined maintenance interval" as claim 9 specifies. Although it is possible to contend that predetermined maintenance intervals are conventional for motor vehicles, the Liang et al. patent fails to suggest configuring a reducing agent storage tank, based on such a predetermined maintenance interval, so that it has a capacity based on assumed reducing agent consumption as claim 9 defines. No correlation at all between tank capacity and assumed reducing agent consumption is provided by the Liang et al. patent. The Liang et al. tank 12 could be of any size. The Ott et al. patent disclosure, relied on by the Examiner for its purported disclosure of a means for preventing vehicle restarting, fails to suggest modifying the Liang et al. system in such a way as to meet the limitations in claim 9 noted.

The Liang et al. and Ott et al. disclosures, moreover, collectively fail to suggest either the act or operation of preventing restarting of a vehicle after the vehicle has been switched off if a reducing agent storage tank is emptied as each of claims 16, 19, and 20 define, or means for preventing restarting of the vehicle

after the vehicle has been switched off if the reducing agent storage tank is emptied as claim 9 defines. While the comments on the Ott et al. patent disclosure set forth by the Examiner in the first full paragraph on page 3 of the Office Action are noted, the Ott et al. patent actually describes a method for detecting damage to a catalytic converter and distinguishing whether the damage is caused by the driver or a technical defect. This is apparent, for example, from lines 26-30 in column 3, lines 48-52 in column 5, and claim 1 of the Ott et al. patent. With the Ott et al. arrangement, it is possible to attribute catalyst damage to misfiring due to an empty reducing agent tank.

As discussed, for example, in lines 30-41 in column 3 of the Ott et al. patent, an empty reducing agent tank can be detected and indicated. Nothing in this portion of, or elsewhere in, the Ott et al. patent, suggests preventing vehicle restarting after the vehicle has been switched off if the reducing agent storage tank is emptied. According to the Ott et al. disclosure, a warning lamp is checked for operability in connection with each start of the vehicle, as noted in lines 49-51 of column 4 and lines 9-12 of column 5, but there is nothing in the Ott et al. disclosure to suggest that starting of a vehicle is actually prevented or precluded when the warning lamp is operating. This feature, again, is explicitly required by each of the independent claims identified above.

It is further respectfully submitted that the Examiner's proposed modification of the Liang et al. system or method in view of the Ott et al. patent disclosure is improper. The Ott et al. tank is not a reducing agent tank, *i.e.* a tank for storing a reducing agent intended for exhaust gas purification. Suggestions supposedly provided by the Ott et al. patent disclosure pertain to

the detection of a catalyst damage, which is not an issue in the Liang et al. system.

Lines 55-59 in column 4 of the Liang et al. patent indicate that *an operator* of the vehicle is to refill the tank 12. The present invention, by contrast, avoids refilling by the operator by way of the special refill opening discussed, for example, in paragraph 0022 of the specification.

As discussed, the collective disclosures provided by the Liang et al. and Ott et al. patents do not suggest a system as defined by claim 9, since neither of these patents suggests a reducing agent storage tank with a capacity equal to a level predetermined as claim 9 requires or restarting means as claim 9 defines.

As also discussed, the collective disclosures provided by the Liang et al. and Ott et al. patents fail to suggest a closure device configured to only be openable during a maintenance operation as claims 16, 19, and 20 define, and thus fail to suggest the “unlocking” act or operation specified in each of these claims. The Liang et al. patent discloses a tank fill port (see, for example, lines 1-4 in column 3) without mentioning any restriction on fill port opening possibilities. The same is true of the Ott et al. patent; the Ott et al. fuel tank openable any time and not only during a maintenance operation.

Finally, as discussed, the collective disclosures provided by the Liang et al. and Ott et al. patents fail to suggest the “preventing” act or operation defined by claims 16, 19, and 20, or the “means for preventing” element defined by claim 9. In the last sentence on page 2 of the Office Action, the Examiner explicitly acknowledges that the Liang et al. patent does not disclose

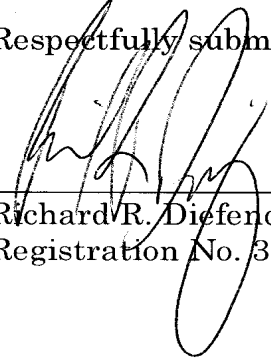
such features, and there is nothing in the Ott et al. disclosure to suggest that starting of a vehicle is actually precluded when the Ott et al. warning lamp is operating.

It is respectfully submitted that the obviousness rejection of claims 9, 16, 19, and 20 based on the Liang et al. and Ott et al. patents is erroneous and should be withdrawn for reasons discussed. All other claims in this application depend on claim 9, claim 16, or claim 20, and the obviousness rejection of these claims should be withdrawn as well for the same reasons.

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an extension of time sufficient to effect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323, Docket No. 095309.57817US.

Respectfully submitted,



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